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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/726,275	11/30/2000	Gerald F. McBrearty	AUS9-2000-0326-US1	5288

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EXAMINER
CHANDRASEKHAR, PRANAV

ART UNIT	PAPER NUMBER
2115	

DATE MAILED: 07/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/726,275	MCBREARTY ET AL.
	Examiner	Art Unit
	Pranav Chandrasekhar	2115

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>30 November 2000</u>.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-17</u> is/are pending in the application.
  4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>1-9 and 11-17</u> is/are rejected.
7)☒ Claim(s) <u>10</u> is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  a)☐ All b)☐ Some * c)☐ None of:
    1.☐ Certified copies of the priority documents have been received.
    2.☐ Certified copies of the priority documents have been received in Application No. _____.
    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
  Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
  Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1 and 16 are rejected under 35 U.S.C. 102(b) as being clearly

anticipated by Van Ryzin [US Pat No. 5,909,689].

2. As per claim 1, Van Ryzin teaches

creating a common storage device and a custom storage device, wherein the

common storage device stores files that are used by the plurality of computers and the

custom storage device stores files specific to an individual one of the plurality of

computers [col. 3 lines 10-20; col. 3 line 63- col. 4 line 20].

3. As per claim 16, Van Ryzin teaches

a storage area network in communication with the plurality of computers, the

storage area network comprising:

common root storage devices containing files common to each of the plurality

of computers [col. 3 lines 10-20]; and

custom root storage devices for each of the plurality of computers, each of

the plurality of computers having a corresponding custom root storage device that

contains files specific to the corresponding one of the plurality of computers [col. 3 line

63- col. 4 line 20].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 3-9 and 11-14 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Van Ryzin [US Pat No. 5,909,689] in view of Arnold et al [US Pat No.

5,255,387].

5. As per claim 3, Van Ryzin teaches

performing an install sequence to create the common storage device and the

custom storage device on the computer network [col. 3 lines 10-20; col. 3 line 63- col. 4

line 20. The creation of the common storage device and generation of the custom

storage are viewed as being an integral part of an install sequence].

Van Ryzin does not explicity teach

updating the common storage device using an update sequence when it is

determined that the common storage device needs updating; and

performing a boot sequence when it is determined that the one of the

plurality of computers in the computer network has been rebooted.

Arnold teaches

updating the common storage device using an update sequence when it is

determined that the common storage needs updating [col. 6 lines 33-45. The updating is viewed as a result of a determination that the common storage requires updating.]

Arnold does not explicitly teach

performing a boot sequence when it is determined that the one of the plurality of computers in the computer network has been rebooted.

It would have been obvious to one of ordinary skill in the art to modify the teachings of Van Ryzin and Arnold to update the common storage device following the creation of common and custom storages in order to avoid the necessity of updating each computer in the network individually and to decrease overall time required to update the network. Furthermore, it would have been obvious to modify the teachings of Van Ryzin and Arnold to perform a boot sequence when a computer has been rebooted in order to effect the changes in the network as per the updated version of the common storage device.

6. As per claim 4, Van Ryzin and Arnold do not explicitly teach the administrator choosing and creating the common storage device and the custom storage device while performing the install sequence.

It would have been obvious to one of ordinary skill in the art to modify the teachings of Van Ryzin and Arnold to allow the administrator to choose and create the common storage device and the custom storage device while performing the install sequence in order to provide the administrator flexibility while designating the devices during the installation process.

7. As per claim 5, Van Ryzin and Arnold do not explicitly teach performing the install sequence comprising creating on the custom storage device a volume group having logical volumes.

It would have been obvious to one of ordinary skill in the art to modify the teachings of Van Ryzin and Arnold to create logical volumes on the custom storage device to group different multiple storage devices into a single storage device.

8. As per claim 6, Van Ryzin and Arnold do not explicitly teach default systems being created and mounted.

It would have been obvious to one of ordinary skill in the art to modify the teachings of Van Ryzin and Arnold to create and mount default files to initiate the installation sequence that creates the custom root storage device and common root storage device.

9. As per claim 7, Van Ryzin and Arnold do not explicitly teach populating a file system from the common storage device as a part of performing the install sequence.

It would have been obvious to one of ordinary skill in the art to modify the teachings of Van Ryzin and Arnold to populate a file system from the common storage device as a part of the installation sequence in order to avoid having to populate files for each custom root storage separately. Populating the custom storage devices from the common root storage significantly reduces the time required for installation.

10. As per claim 8, Van Ryzin and Arnold do not explicitly teach the common storage device containing files necessary to at least populate the custom storage device.

It would have been obvious to one of ordinary skill in the art to modify the

teachings of Van Ryzin and Arnold to enable the common storage device to contain files

necessary to at least populate the custom storage device in order to avoid having to

populate files for each custom root storage separately. Populating the custom storage

devices from the common root storage significantly reduces the time required for

installation.

11. As per claim 9, Van Ryzin and Arnold do not explicitly teach the common storage

device including a primary common root storage and an alternate common root storage

device.

It would have been obvious to one of ordinary skill in the art to modify the

teachings of Van Ryzin and Arnold to incorporate a primary and alternate common root

storage device in order to provide a backup facility for the primary common storage in

the event that the primary common root storage is unable to perform a specific function.

Furthermore, the alternate common root storage may be used to execute a specific

function in an event wherein the primary common root storage is already being utilized

to serve some other function.

12. As per claim 11, Van Ryzin and Arnold do not explicitly teach locating the boot

code on the custom root storage device and then activating the custom root storage

device.

It would have been obvious to one of ordinary skill in the art to modify the

teachings of Van Ryzin and Arnold to locate boot code on the custom root storage

device and then activating the custom root storage in order to initiate a boot sequence
that is indicative of either an original or updated version of the common storage device.

13. As per claim 12, Van Ryzin and Arnold do not explicitly teach activating at least
one of the common root storage devices while performing a boot sequence.

It would have been obvious to one of ordinary skill in the art to modify the
teachings of Van Ryzin and Arnold to activate at least one of the common root storage
devices while performing a boot sequence in order to initiate a boot sequence that is
indicative of either an original or an updated version of the common storage device.

14. As per claim 13, Van Ryzin and Arnold do not explicitly teach determining that
activation of the primary common root storage device was not successful and activating
the alternate common root storage device.

It would have been obvious to one of ordinary skill in the art to modify the
teachings of Van Ryzin and Arnold to activate an alternate common root storage device
in the event that the activation of the primary common root storage device was not
successful in order to provide a backup for the primary common root storage.

15. As per claim 14, Van Ryzin and Arnold do not explicitly teach determining that the
primary common root storage is marked for updating and activating instead the
alternate common root storage device.

It would have been obvious to one of ordinary skill in the art to modify the
teachings of Van Ryzin and Arnold to activate an alternate storage device for a boot
sequence instead of a primary common storage in order to update the primary common
storage prior to booting the network from the primary common storage. It would be

advantageous to update the primary common storage before rebooting the network

from it in order to effect changes in the network as per the modified common root

storage device.

16. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Van

Ryzin [US Pat No. 5,909,689] in view of Arnold et al [US Pat No. 5,255,387] as applied

to claim 3 above, and further in view of Zollinger et al [US Pat No. 5,999,947].

Van Ryzin and Arnold do not explicitly teach determining whether a level of the

activated common root storage device level matches a level of the custom root storage

device and, if not, then updating the operating system files on the custom root storage

device based on the common root storage device level.

Zollinger teaches comparing the database version between a database

corresponding to a host and that of a client computer wherein the memory of the client

computer is updated based on the memory of the host [col. 14 line 55 – col. 15 line 15].

Zollinger does not explicitly teach the updating of operating system files.

It would have been obvious to one of ordinary skill in the art to modify the

teachings of Van Ryzin, Arnold and Zollinger to determine if the level of the custom root

storage device matches a level of a common root storage device and accordingly

update the operating system files on the custom root storage in order to update only on

the basis of differences in levels as opposed to a complete update and hence reduce

the time taken for updating each computer in the network. Furthermore, the concept of

updating databases based on differences between a host and a client may be applied to

determining differing levels in that of the common root storage and custom root storage and accordingly updating the custom root storage.

17. Claims 2 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Ryzin [US Pat No. 5,909,689].

18. As per claim 2, Van Ryzin does not explicitly teach the common storage and the custom storage device being part of a storage area network.

It would have been obvious to one of ordinary skill in the art to modify the teachings of Van Ryzin to incorporate the common storage and custom storage device in a storage area network since storage area networks are well known in the art.

19. As per claim 17, Van Ryzin does not explicitly teach the common root storage devices including a primary common root storage device and an alternate common root storage device.

It would have been obvious to one of ordinary skill in the art to modify the teachings of Van Ryzin to incorporate a primary and alternate common root storage device in order to provide a backup facility for the primary common storage. Furthermore, the alternate common root storage may be used to execute a specific function in an event wherein the primary common root storage is already being utilized to execute some other function.

Allowable Subject Matter

20. Claim 10 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

21.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

22.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pranav Chandrasekhar whose telephone number is 703-305-8647. The examiner can normally be reached on 8:30 a.m.-5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Lee can be reached on 703-305-9717. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-2100.

THOMAS LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

Pranav Chandrasekhar
June 25,2004